

Newsletter of  
The Black River Astronomical Society

# Guidescope

Lorain County, Ohio

October 2017

Website: [blackriverastro.org](http://blackriverastro.org)

Newsletter submissions: [Editor](#)

- \* \* \* \* \*
- Sunday, October 1, 1-4 p.m.: Solar observing, Sandy Ridge Reservation
  - Wednesday, October 4, 7 p.m.: Regular meeting, Carlisle Reservation Visitors Center. Annual Meeting of the Members—board elections, and astronomical videos. Dues are due in October.
  - Thursday, October 12, 7 p.m.: Board meeting, Blue Sky Restaurant, Amherst
  - Friday, October 13, 8-10 p.m.: Public observing, Nielsen Observatory (cloud backup date 10/14)
  - Friday, October 20, 8-10 p.m.: Public observing, Nielsen Observatory (cloud backup date 10/21)

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## **Visit Our Website**

Explore if you will the informative BRAS [website](#) and all its interesting, timely [links](#), and join the interactive members-only [BRAS Forum](#) to better keep in touch.

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## **WANT TO SERVE AS A MEMBER OF THE BOARD OF DIRECTORS?**

If so, three board positions are up for re-election at the October regular meeting. One of the positions will be vacant. If you would be interested in running for a 3-year term on the Board and can make it to most if not all monthly board meetings, please let [Greg Zmina](#) know before the October 4 regular meeting via email.

## **BOARD SUMMARY**

**September 14, 2017**

The meeting was called to order at 7:08 p.m. with 9 of the 11 Directors present. The minutes from the August meeting were read and approved. The Treasurer gave his usual report with the highlight being \$1,000 profit from selling eclipse glasses.

Next came committee reports with the *Guidescope* editor Bill Ruth reporting that all was well. Lee Lumpkin gave his last Website Committee report, as Lee is not running for reelection of the Board of Directors. He stated that we will need to switch the website language from HTTP to HTTPS, the “S” standing for secure. Lee will check with our host company to be sure this isn't an issue then contact David Griffiths to make the switch. The Instrumentation chairman, John Reising, reported that the tube we secured from Diane Lucas is Fiberglas-ed and he has plans to implement it to use with our Odyssey telescope. No work has been done on the 16” due to time pressures. The OTAA chairman reminded Board members that the CAA convention is 9/16 and ours is 9/23.

Programming is set through December. October is the Annual Meeting of the Members and Elections and a short video will be shown. November will be a video of the recent NOVA program on the Cassini spacecraft, and December is our annual holiday pot luck dinner and party at the LCMP Amherst Beaver Creek Reservation.

Old Business came next with the Board focusing first on preparations for our OTAA Convention on Sept. 23<sup>rd</sup>. Assignments were as follows:

Tim: hot dogs and grills

Mickey: Buns and condiments

Greg Z.: ice, coolers and water, door prizes

Jeff: Door prizes

Tim: Program: The History of the Refractor, in case of bad weather

Dan: cash box, tickets, change, sign-in sheet

John: Dawn patrol

Steve: Club info, key to hall, security system code.

Dan Walker gave Schauer a check for \$100 to give to the church as a donation as they are kind enough to give us the hall for free. Schauer will deliver the check when he picks up the key and the security code for the hall.

The second item of new business was a brief discussion of providing members with a club roster. We planned to do this in the spring, but the Board had so many activities to prepare for, and so many Directors with unusual demands on their time, that it never got done. Since observing season is drawing to a close, and club membership renewals are in October (DUES ARE DUE!!!) it was decided to table the club roster until spring.

New Business came next with a reminder to the Board that we have two Directors who are running for reelection in October (Tim Kreja and John Reising) and one open slot as Lee Lumpkin is not standing for reelection. Mickey Hasbrook will prepare ballots and run the election.

Next came a discussion about who will be the computer operator at meetings. Lee has been using his own computer running Linux with Open Documents Format software (Libre Office) installed, at our meetings. Since Lee will no longer be doing this, we will need someone computer savvy to handle this chore. The Board discussed buying a laptop configured as we want it running Linux with ODF software for \$500 or less to use. Lee will investigate what might be available.

Next came the reminder that we have to modify our Membership Forms, both the paper and online forms, to reflect that we no longer offer the Family membership and the fact that Student and Retired dues were raised from \$7.00 to \$10.00. Lee will see to this. Tim Kreja will then photocopy new tri-fold club brochures with the proper membership information.

Lastly, Schauer reported that MVAS has already set their OTAA Convention date for next year to be August 11, 2018. We then voted to set our OTAA date for September 8, 2018. We like earlier in September because the church will not have the temporary fence around the parking lot installed early in the month. The fence is used for the huge craft show the church hosts in October.

Tim Kreja reminded Schauer that we should probably set Public Observing and Solar Observing dates for 2018 at the October meeting and Schauer stated he would prepare calendars and research astronomical events coming next year, in time for the next meeting. Dates for October were set, and the meeting was adjourned at 8:39 p.m.

~Steve Schauer

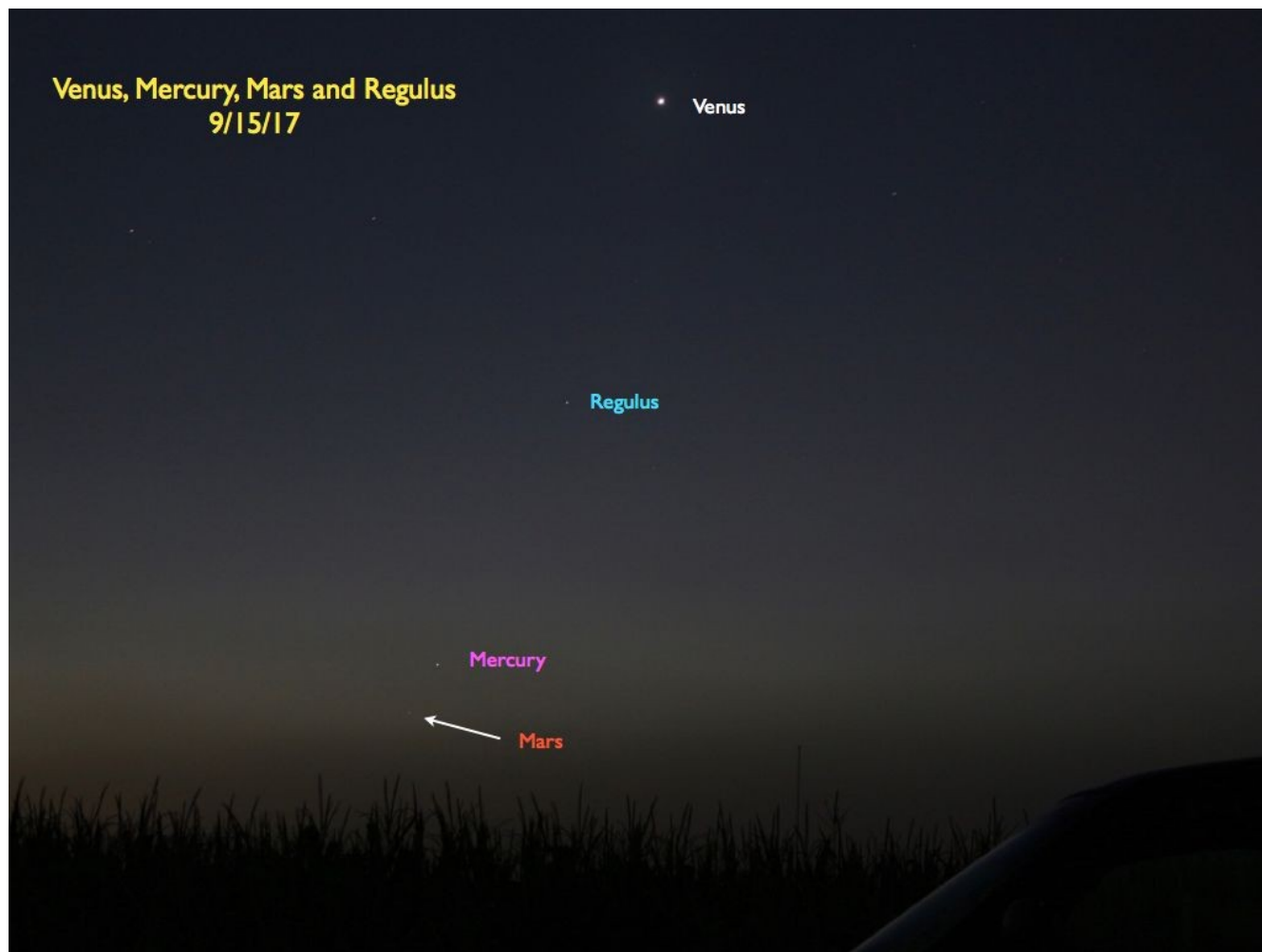


Photo by Dave Lengyel.

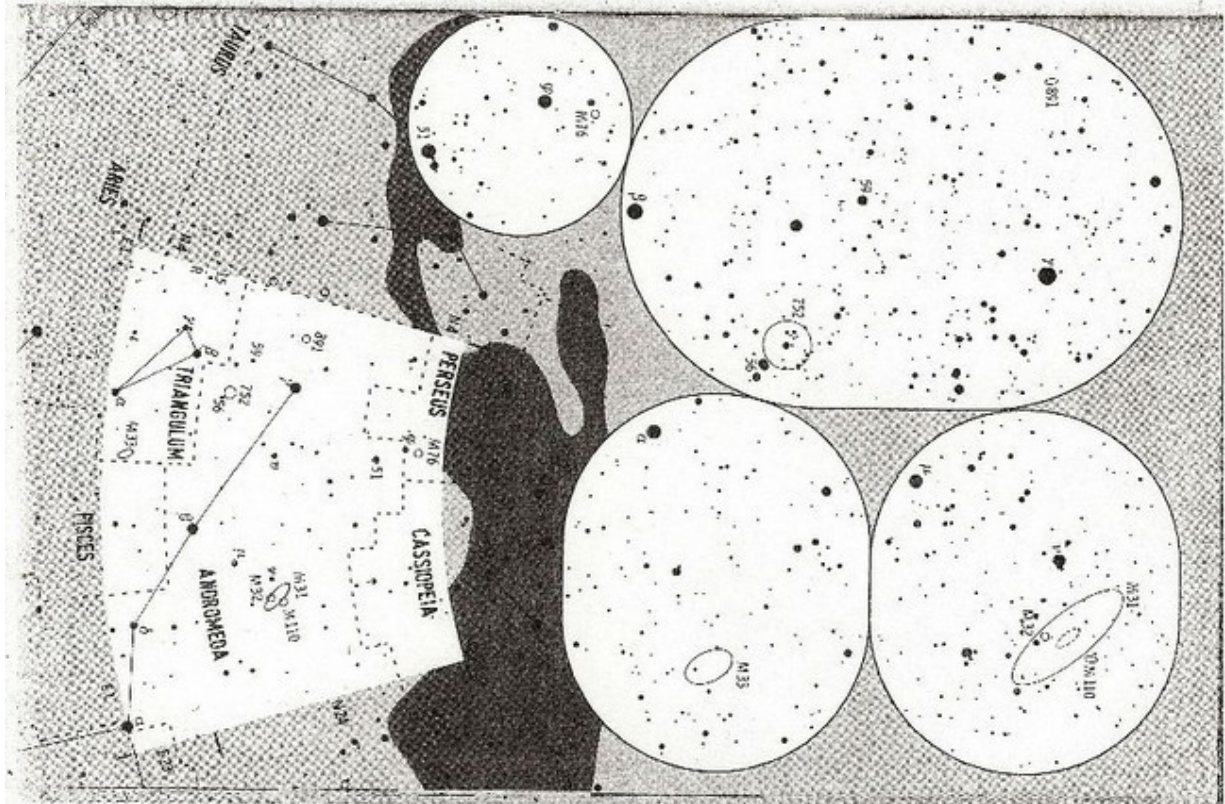
# NO Northern Sky Fall Constellations

NEBULA	Position	V-Mag.	Size	Shape	Type	Vis.	Dist.	R.A.	Dec.	
205 M110	And	8	12/2'	10'	E	ES	Glx	3 Mly	0°40'4	41°59
221 M32	And	8	11	3.5	C	E2	Glx	3 M	0 42.7	40.87
224 M31	And	4	13	150		SB	Glx	3 M	0 42.7	41.27
598 M33	Tri	6	14	50		Sd	Glx	3 M	1 33.9	30.66
650 M76	Per	10	11	2.5	0	A	PN	4000	1 42.4	51.57
752	And	6	14	50		m	OC	1500	1 57.8	37.68
891	And	10	13	10		SB	Glx	40 M	2 22.5	42.33

205 M110 Companion galaxy of the Andromeda Galaxy, slightly asymmetric.  
 221 M32 Companion of the Andromeda Galaxy, almost stellar in binoculars.  
 224 M31 Andromeda Galaxy, nearest large galaxy, physically comparable with our Milky Way, bright prominent core, three lanes west of the core, outer spiral arms and great size visible only under dark sky.  
 598 M33 Triangulum Galaxy, dark sky and low power essential, elongated glow in binoculars without a bright core; a telescope shows two or three spiral arms with emission nebulae and stellar associations.  
 650 M76 Little Dumbbell, irregular shape, consists of NGC650 and 651.  
 752 Diffuse object with unaided eye, nicely resolved in binoculars.  
 891 Pinpoint edge-on galaxy, very elongated shape distinct in a telescope.

STAR	Position	V-Mag.	B-V	Te.	Abs.	Name	Dist.	R.A.	Dec.
21 a	And	2.1	0.0	1	0'	Alpheratz, Sirrah	98 ly	0°08'4	29°09
31 b	And	3.3	1.3	1			102	0 39.3	30.86
35 v	And	4.5	-1.1	-2			650	0 49.8	41.05
37 u	And	3.9	0.1	1			140	0 56.8	38.50
43 β	And	2.1	1.6	-2		Misrah	200	1 09.7	35.62
50 v	And	4.1	0.5	1	3		44	1 36.8	41.41
51	And	3.6	1.3	0			180	1 38.0	48.63
φ	Per	4.0	-1.1	-3			800	1 43.7	50.69
2 α	Tri	3.4	0.5	1	2	Eimuthalreth	64	1 53.1	29.55
56	And	5.0	* 1.3	-2			320, 900	1 56.0	37.26
57 γ	And	2.1	* 1.2	-3		Alhanak	370	2 03.9	42.33
4 β	Tri	3.0	0.1	1	0		125	2 09.5	34.99
59	And	5.6	* 0.0	1			300	2 10.9	39.04
6 α	Tri	4.9	* 0.8	0			300	2 12.4	39.30
9 γ	Tri	4.0	0.0	1			120	2 17.3	33.85
15	Tri	5.1	* 1.1	-2			1030	2 35.8	34.70
R	Tri	6.0-10	1.3	1	-2		1000	2 37.0	34.26

BINARY	Position	V-Mag.	B-V	Te.	Sep.	PA	Vis.	R	Th	VAR	STAR
56	And	5.7	5.9	1.1	1.6'	201°	☉	☉	206 d	☉	
57 γ	And	2.2	4.9	1.4	0.0		☉	☉	345, 368	☉	
59	And	5.1	6.8	0.0	0.1	16.7°	☉	☉	Min. -150	☉	
6 α	Tri	5.2	6.7	0.8	0.5		☉	☉	Extrema 5.1 12.6	☉	
15	Tri	5.4	6.7	1.6	0.2	142.2°	☉	☉		☉	



(thanks to John Reising for constellation of the month)



## Deep-Sky Objects for October

### Objects for Binoculars

RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
23 <sup>h</sup> 56.7 <sup>m</sup>	+61° 44'	NGC 7788	9.4v	9'		Cas	Open Cl 20* with 7790
23 <sup>h</sup> 57.0 <sup>m</sup>	+57° 44'	NGC 7789	6.7v	15'		Cas	Open Cluster 300*
23 <sup>h</sup> 58.4 <sup>m</sup>	+61° 13'	NGC 7790	8.5v	17'		Cas	Open Cl 40* with 7788
01 <sup>h</sup> 51.5 <sup>m</sup>	-10° 20'	Zeta	3.7, 9.9	187.0"	41°	Cet	Double Star
01 <sup>h</sup> 53.5 <sup>m</sup>	+19° 18'	Gamma (AC)	4.8, 9.6	221.3"	84°	Ari	D.S. (AB: 4.8,4.8; 7.8")
02 <sup>h</sup> 32.7 <sup>m</sup>	+61° 27'	Mel 15	6.5v	22'		Cas	Open Cl 40* (w E.neb IC1805)

### Objects for Small Telescopes (2-6 inch)

RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
01 <sup>h</sup> 15.6 <sup>m</sup>	+58° 49'	NGC 436	8.8v	5'		Cas	Open Cluster 30*
01 <sup>h</sup> 44.1 <sup>m</sup>	+61° 53'	NGC 654	6.5v	5'		Cas	Open Cluster 60*
01 <sup>h</sup> 46.0 <sup>m</sup>	+61° 15'	NGC 663	7.1v	16'		Cas	Open Cluster 80*
02 <sup>h</sup> 03.0 <sup>m</sup>	+33° 17'	Iota	5.3, 6.9	3.9"	71°	Tri	Double Star
02 <sup>h</sup> 42.7 <sup>m</sup>	-00° 01'	M77	8.9v	8.2'x7.3'		Cet	Galaxy
03 <sup>h</sup> 57.9 <sup>m</sup>	+40° 01'	Epsilon	2.9, 8.1	8.8"	10°	Per	Double Star

### Objects for Medium Telescopes (8-14 inch)

RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
00 <sup>h</sup> 14.1 <sup>m</sup>	-23° 11'	NGC 45	10.8v	6.3'x4.6'		Cet	Galaxy
01 <sup>h</sup> 47.9 <sup>m</sup>	+27° 26'	NGC 672	10.9v	6.6'x2.6'		Tri	Galaxy
01 <sup>h</sup> 59.3 <sup>m</sup>	+19° 01'	NGC 772	10.3v	7.3'x4.6'		Ari	Galaxy
02 <sup>h</sup> 08.4 <sup>m</sup>	+1° 00'	NGC 821	10.7v	3.3'x2.3'		Ari	Galaxy
02 <sup>h</sup> 27.3 <sup>m</sup>	+33° 35'	NGC 925	10.1v	12.0'x7.4'		Tri	Galaxy
02 <sup>h</sup> 30.8 <sup>m</sup>	+37° 08'	NGC 949	11.8	3.3'x2.1'		Tri	Galaxy
02 <sup>h</sup> 34.2 <sup>m</sup>	+29° 19'	NGC 972	11.4v	3.4'x1.6'		Ari	Galaxy

### Objects for Larger Telescopes (16-inch & larger) Challenge Objects

RA	Dec	Number	Mag(s)	Size/Sep.	PA	Const.	Type of Object
00 <sup>h</sup> 39.0 <sup>m</sup>	+48° 20'	NGC 185	9.2v	14.5'x12.5'		Cas	Galaxy
01 <sup>h</sup> 09.4 <sup>m</sup>	+35° 43'	NGC 404	10.3v	6.1'x6.1'		And	Galaxy
01 <sup>h</sup> 31.3 <sup>m</sup>	-06° 52'	NGC 584	10.5v	3.2'x1.7'		Cet	Galaxy
01 <sup>h</sup> 33.9 <sup>m</sup>	+30° 39'	M33	5.7v	67.0'x41.5'		Tri	Galaxy
02 <sup>h</sup> 09.4 <sup>m</sup>	-10° 08'	NGC 835	12.1v	1.9'x1.6'		Cet	Galaxy with 833, 838, 839
02 <sup>h</sup> 18.0 <sup>m</sup>	+14° 33'	NGC 877	11.9v	2.1'x1.7'		Ari	Galaxy with 870, 871, 876
02 <sup>h</sup> 39.2 <sup>m</sup>	+10° 51'	NGC 1024	12.1v	4.4'x1.6'		Ari	Galaxy with 1028, 1029

Print and use the [Deep-Sky Interest Group - Observation Form](#) to record your observations.

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(thanks to Len Jezior for deep-sky objects charts)

## **Guidescope Contributions Wanted**

If you have any wanted/for sale announcements, astronomical photos you've taken, interesting article links, equipment reviews, observing reports, or anything that you think the local amateur astronomy community could relate to, please send it to your [humble Guidescope editor](#) for inclusion in forthcoming issues. Many thanks.

~Bill Ruth